

REMARKS

Status of application

Claims 1, 3-6, 8, 10-13, 15, and 17-21 have been examined and stand rejected in view of cited art on new ground(s). Independent Claims 1, 8, and 15 have been amended to more fully clarify the claimed subject matter. Entry of the amendments and reconsideration of the subject application is respectfully requested.

Claim amendments

Applicant's claims have been amended to clarify a significant distinction between Applicant's invention and the prior art. The approaches of the prior art for managing a communications session between a layer-2 gateway device and a user device typically involve the user device explicitly requesting the layer-2 gateway device to make a change in the quality of service level. In general, the overriding drawback of such user device-centric approaches is that the user device must be configured with quality of service selection and request "intelligence." Further, in the user device-centric approaches of the prior art, an application server acts passively and adjusts the quality of service level in response to an express request to do so from a user device. As noted in the background of Applicant's specification, paragraph [0006], there are significant drawbacks associated with user device-centric approaches for selecting a quality of service level. For example, the vendor of the user device and the vendor of the layer-2 gateway device are often different vendors. This difference can cause compatibility problems with regard to a user device's ability to request a new quality of service level from a layer-2 gateway device.

In contrast to the approaches of the prior art, Applicant's approach features an application server-centric approach for managing a communications session between a layer-2 gateway device and a user device. Applicant's approach involves an application server capable of actively affecting a change in the quality of service level supported by the communications session. Applicant's approach does not rely on a user device to expressly request the change. In Applicant's approach, the application server may actively change the supported quality of service level independent of whether the user device has expressly requested a change to the quality of service level. Applicant's claims have been amended to clarify the distinction between Applicant's application server-centric approach and the user device-centric approach of the prior art. For example, independent Claim 1 now recites:

wherein the request is a request for a particular application service provided by the application server **and not an express request to change the quality of service level supported by the communications session;**

(Emphasis added.)

Support for the amendments to the claims can be found in at least paragraph [0006] of the specification (describing the drawbacks of user device-centric approaches for selecting the quality of service level) and paragraphs [0022]-[0026] (describing an application server affecting a change in the quality of service level in response to an occurrence of an event where the event "is not limited to any particular type of event.").

Prior art rejections

Section 102 Rejection

Claims 1, 3-6, 8, 10-13, 15, 17-18, 20 and 21 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Amin (U.S. Patent 6,910,074, "*Amin*"). Here, the Examiner likens Applicant's claimed "application server" with *Amin's* Serving LSF coupled to Radio Access Network (RAN). For the reasons provided below, Applicant's claimed subject matter is patentably distinguishable from *Amin*.

Prior art solutions, including *Amin*, each cause a change in a communications sessions used by a user device in response to the user device expressly requesting a change in the quality of service level supported by the communications session. Applicant's claimed "application server", in contrast, can cause a change in the quality of service supported by a communications session without relying on the user device to initiate the change. As discussed below, how a quality of service level supported by a communications session is changed according to Applicant's claims differs substantially from prior art approaches.

Consider the typical prior art approach, such as typified by *Amin*. The prior art user device sends an express quality of service change request to a layer-2 gateway device which in turn queries a policy server to determine whether the requested quality of service level should be supported. In *Amin* and other similar systems, the policy server acts passively, awaiting a policy request from the layer-2 gateway device. Based on this passive nature, the prior art approaches

require intelligence in the user device to select the desired quality of service level which may or may not be optimal.

In Applicant's claimed "application server", the approach is very different: Applicant's application server sends "a message to the layer-2 gateway device that specifies a quality of service profile for the second quality of service level to be supported by the communications session." Significantly, in Applicant's application server, the quality of service level to be supported is determined based on a request from the user device for a particular application service and policy criteria where the request from the user device is "not an express request to change the quality of service level supported by the communications session." (Emphasis added.) In other words, Applicant's application server can actively determine a quality of service level to be supported by the communications session and can actively affect a change in the quality of service level supported by the communications session – without relying on the user device to make a selection of the quality of service level and sending a quality of service change request.

A significant advantage of Applicant's approach is that quality of service selection intelligence can be centralized in the network; in particular, at an application server. Applicant's approach allows policy changes to be made at a single location, for example at an application server, without having to update individual user devices. Another advantage of Applicant's approach is that it reduces the amount of intelligence that must be included in user devices. (See Applicant's specification, paragraph [0013]). These advantages cannot be achieved by the approaches of the prior art, including *Amin*, that require the user device to select a quality of service level to be supported and request the user device to expressly make a quality of service change request to affect a change in the quality of service level supported by a communication session.

Applicant's independent claims 1, 8, and 15 have been amended to bring these distinctions to the forefront. In particular, claims 1, 8, and 15 have been amended to emphasize that the request from the user device is not an express request to change the supported quality of service level (shown in amended form):

wherein the request is a request for a particular application service provided by the application server and not an express request to change the quality of service level supported by the communications session;

All told, Applicant's approach affects a change in the quality of service level supported by a communications session between a user device and a layer-2 gateway in a unique and advantageous manner. As *Amin's* approach requires quality of service selection intelligence to be located in the user device, *Amin's* approach, if anything, teaches away from Applicant's claimed approach. In view of the above-discussed amendments and clarifying remarks, it is respectfully submitted that the rejection under Section 102 is overcome.

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each dependant claim includes the features of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional features that independently render them patentable. Due to the fundamental differences already identified, a separate discussion of those features is not included at this time.

CONCLUSIONS

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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